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10/696,490	10/28/2003	Aaron D. Bachelder	53932/RAG/C766	5761

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EXAMINER

LU, SHIRLEY

ART UNIT	PAPER NUMBER
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2612

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/696,490

Applicant(s)

BACHELDER ET AL.

Examiner

Shirley Lu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2006.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-23 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 11/20/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

a. Applicant argues that Arbinger in view of Hutchinson does not specifically disclose the limitations of the newly amended claims.

In response, the examiner has considered the arguments, but disagrees and defers the grounds of rejection in addition the 112 rejection below.

Claim Rejections - 35 USC § 112

Claims 1-23 is/are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant amended the claims to include limitations such as "an interrupt signal over a predetermined data frequency" and "a primary audio signal presenting pertinent vehicle data over a predetermined audio frequency." The specification recites, inter alia, "pre-selected audio and data sub-carrier frequencies," but does not appear to support the claimed subject matter.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter

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as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim(s) 1-2, 14-16 is/are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arbinger (6339382) in view of Hutchinson (2003/0164775).

As to claim 1,

Arbinger discloses:

An in-vehicle warning system (fig. 1, 2) for warning motorists of an approaching emergency vehicle comprising;

a global positioning system receiver in said emergency vehicle (fig. 1, el. 18; col. 3, lines 20-36);

an on-board diagnostic computer receiving the output from said global positioning system receiver and deriving pertinent vehicle data in digital form (plurality of GPS signals triangulated into an emergency location signal string; col. 3, lines 37-53);

Arbinger does not expressly teach an emergency vehicle transmitter for transmitting an interrupt signal over a predetermined data frequency and- a primary audio signal representing pertinent vehicle data over a predetermined audio frequency;
a radio receiver in said motorist's vehicle configured to receive the interrupt signal over the predetermined data frequency and in response, automatically switch from a current audio frequency tuned to by the radio receiver to the predetermined audio frequency;

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whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle.

Hutchinson discloses:

an emergency vehicle transmitter for transmitting an interrupt signal over a predetermined data frequency and- a primary audio signal representing pertinent vehicle data over a predetermined audio frequency ([0011-0012]; [0005-0009]; [0019-0025]; [0017]); a radio receiver in said motorist's vehicle configured to receive the interrupt signal over the predetermined data frequency and in response, automatically switch from a current audio frequency tuned to by the radio receiver to the predetermined audio frequency; whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle ([0011-0012]; [0005-0009]; [0019-0025]; [0017]).

It would have been obvious to one of ordinary skill in the art to modify Arbinger to teach an emergency vehicle transmitter for transmitting an interrupt signal over a predetermined data frequency and- a primary audio signal representing pertinent vehicle data over a predetermined audio frequency; a radio receiver in said motorist's vehicle configured to receive the interrupt signal over the predetermined data frequency and in response, automatically switch from a current audio frequency tuned to by the radio receiver to the predetermined audio frequency; whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle, as taught by Hutchinson, so as to allow emergency service vehicles to be heard despite improved sound proofing in cars and more powerful sound systems.

As to claim 2,

Hutchinson discloses:

including a master controller receiving the output from said emergency vehicle on-board diagnostic computer, said master controller generating said primary audio signal to be sent by said transmitter ([0017]; [0019-0020]).

As to claim 14,

Arbinger discloses:

A method of warning motorists of approaching emergency vehicles comprising; deriving pertinent emergency vehicle information by an on-board diagnostic computer connected to a global positioning system receiver (plurality of GPS signals triangulated into an emergency location signal string; col. 3, lines 37-53);

Arbinger does not expressly teach an emergency vehicle transmitter for transmitting an interrupt signal over a predetermined data frequency and- a primary audio signal representing pertinent vehicle data over a predetermined audio frequency; a radio receiver in said motorist's vehicle configured to receive the interrupt signal over the predetermined data frequency and in response, automatically switch from a current audio frequency tuned to by the radio receiver to the predetermined audio frequency; whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle.

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Hutchinson discloses:

an emergency vehicle transmitter for transmitting an interrupt signal over a predetermined data frequency and- a primary audio signal representing pertinent vehicle data over a predetermined audio frequency ([0011-0012]; [0005-0009]; [0019-0025]; [0017]); a radio receiver in said motorist's vehicle configured to receive the interrupt signal over the predetermined data frequency and in response, automatically switch from a current audio frequency tuned to by the radio receiver to the predetermined audio frequency; whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle ([0011-0012]; [0005-0009]; [0019-0025]; [0017]).

It would have been obvious to one of ordinary skill in the art to modify Arbinger to teach an emergency vehicle transmitter for transmitting an interrupt signal over a predetermined data frequency and- a primary audio signal representing pertinent vehicle data over a predetermined audio frequency; a radio receiver in said motorist's vehicle configured to receive the interrupt signal over the predetermined data frequency and in response, automatically switch from a current audio frequency tuned to by the radio receiver to the predetermined audio frequency; whereby said radio receiver broadcasts an audio warning about the approach of an emergency vehicle, as taught by Hutchinson, so as to allow emergency service vehicles to be heard despite improved sound proofing in cars and more powerful sound systems.

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As to claim 15,

Arbinger discloses:

said emergency vehicle on-board diagnostic computer derives pertinent information regarding vehicle speed, location and position (col. 4, lines 10-20; location, position, velocity).

As to claim 16,

said information transmitted from said emergency vehicle to said motorist's radio comprises a primary audio frequency and a data sub-carrier frequency ([0019-0020]; [0017]).

2. Claim(s) 3-10, 17-20 is/are rejected under 35 U.S.C. § 103(a) as being unpatentable over Arbinger (6339382) in view of Hutchinson (2003/0164775), and in further view of Markow (6087961).

As to claim 3,

Arbinger in view of Hutchinson fail to specifically teach including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle.

In an analogous art, Markow discloses including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle (receiver and radio may be a single unit; col. 4, lines 6-20; fig. 2, 4; display screen 100, col. 4, lines 21-37).

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It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson's system to teach including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle, as taught by Markow, so as to allow provide the vehicle operator with a visual reference as to the presence and location of the approaching emergency.

As to claim 4,

Markow discloses:

said dash-board based indicator is an icon that is illuminated when an output from said emergency vehicle transmitter is received (col. 4, lines 21-37; fig. 4).

As to claim 5,

Markow discloses a vehicle shaped icon (col. 4, lines 21-37; fig. 4).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow in order to have said includes illuminated letters "EV" on a dashboard display, so allow so allow a user and to view an effective visual display.

As to claim 6,

Markow discloses:

dash-based visual indicator includes icons around a central icon that indicate relative position of an emergency vehicle (col. 4, lines 21-37; fig. 4).

As to claim 7,

said central icon includes illuminated letters "EV" (see claim 5; Although Arbinger in view of It would have been obvious to one of ordinary skill in the art to modify Arbinger

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in view of Hutchinson, in further view of Markow in order to have an illuminated icon, so allow a user and to view an effective visual display.

As to claim 8,

said icons around said central icon comprise a plurality of dots in a circle around said central icon (col. 4, lines 21-37; fig. 4; dots is defined as small spots).

As to claim 9,

Markow discloses said plurality of dots around said central icon, equally spaced in a circle around said central icon (col. 4, lines 21-37; fig. 4; dots is defined as small spots).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow to teach eight brightly illuminated dots equally spaced in a circle around said central icon so as to allow provide the vehicle operator with a visual reference as to the presence and location of the approaching emergency.

As to claim 10,

Markow discloses:

at least one of said dots is illuminated to indicate the relative position of an emergency vehicle col. 4, lines 21-37; fig. 4).

As to claim 17,

including a visual indicator for indicating the approach of an emergency vehicle on a dash-based visual display Arbinger in view of Hutchinson fail to specifically teach including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle.

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In an analogous art, Markow discloses including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle (receiver and radio may be a single unit; col. 4, lines 6-20; fig. 2, 4; display screen 100, col. 4, lines 21-37).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson's system to teach including a dash-board based indicator in said motorist's vehicle for indicating the approach of an emergency vehicle, as taught by Markow, so as to allow provide the vehicle operator with a visual reference as to the presence and location of the approaching emergency.

As to claim 18,

said dash-board visual display illuminates an icon to indicate the approach of an emergency vehicle (col. 4, lines 21-37; fig. 4).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow in order to have an illuminated icon, so allow a user and to view an effective visual display.

As to claim 19,

Markow discloses:

said dash-board visual display illuminates one of a plurality of dots in a circle around said icon to indicate the relative position of an emergency vehicle (col. 4, lines 21-37; fig. 4; dots is defined as small spots).

As to claim 20,

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Markow discloses a vehicle shaped icon (col. 4, lines 21-37; fig. 4).

It would have been obvious to one of ordinary skill in the art to modify Arbinger in view of Hutchinson, in further view of Markow in order to have an illuminated icon on said dashboard visual display includes an "EV" icon, so allow so allow a user and to view an effective visual display.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim(s) 21-23 is/are rejected under 35 U.S.C. 102(e) as being anticipated by Hutchinson (2003/0164775).

As to claim 21, Hutchinson discloses:

A method for warning motorists of an approaching emergency vehicle comprising: receiving at a motorist's vehicle an interrupt signal over a predetermined data frequency and an audio signal including information about the approaching emergency vehicle over a predetermined audio frequency; automatically switching, in response to the interrupt signal, from a current audio frequency to the predetermined audio frequency; and outputting an audio warning message contained

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in the audio signal received over the predetermined audio frequency ([0011-0012]; [0005-0009]; [0019-0025]; [0017]).

As to claim 22, Hutchinson discloses:

the interrupt signal is transmitted over a single predetermined data frequency and the audio signal is transmitted over a single predetermined audio frequency ([0011-0012]; [0005-0009]; [0019-0025]; [0017]).

As to claim 23, Hutchinson discloses:

further comprising: displaying a visual warning display in response to receipt of the interrupt signal ([0024]).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shirley Lu whose telephone number is (571) 272-8546. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SL


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